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Atty Dkt. No.: 10031531-1
USSN: 10/813,331

REMARKS

In view of the above amendments and the following remarks, the Examiner is requested to allow Claims 1, and 4-16, the only claims pending and under examination in this application.

Claim 1 has been amended to recite an addressable array. Support for this amendment may be found through out the specification and claims as originally filed. For instance, support may be found at page 10, lines 13 to 19. Claim 4 has been amended. Claim 3 has been cancelled. Claim 25 has been cancelled. Claim 28 has been added. Support for new Claim 28 can be found at page 9, line 16. Accordingly, no new matter has been added by way of these amendments.

As no new matter has been added by way of these amendments, entry thereof by the Examiner is respectfully requested.

Claim Rejections – 35 U.S.C. § 102(b)

Claims 1-9 and 11-16 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Anderson et al. (U.S.P.N. 5,186,824).

According to the M.P.E.P., a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. See M.P.E.P. § 2131.

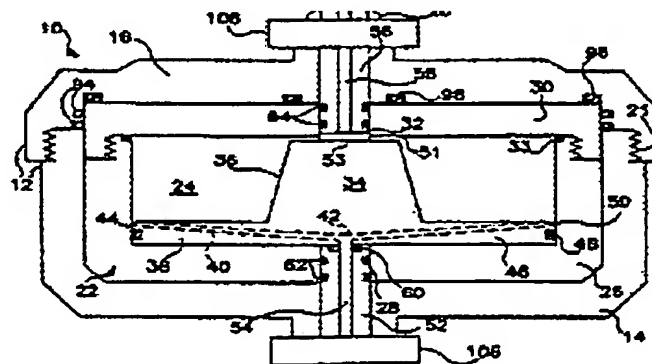
Claims 1-9 and 11-16 are directed to a method of producing an addressable array of at least two different nucleic acid ligands covalently bonded to a surface of a substrate. The method includes contacting blocked nucleoside monomers to at least a first location and a second location of a substrate surface displaying functional groups under conditions sufficient for the blocked nucleoside monomers to covalently bond to the surface in the first and second locations to produce a

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substrate surface displaying covalently bound blocked monomers. The method further includes contacting the surface displaying blocked nucleoside monomers with an oxidation fluid to produce an oxidized surface, contacting the oxidized surface with a deblocking fluid and removing the deblocking fluid from the deblocked surface by displacing the deblocking fluid from the surface with a wash fluid. The method further includes reiterating the steps at least once to produce an addressable array of at least two different nucleic acid ligands. Accordingly, an element of the rejected claims is the production of an addressable array.

As recited at page 10, lines 15 to 19 of the Applicants' specification, an "array is 'addressable' when it has multiple regions of different moieties (e.g., different polynucleotide sequences) such that a region (i.e., a "feature" or "spot" of the array) at a particular predetermined location (i.e., an "address") on the array will detect a particular target or class of targets."

The Applicants contend that Anderson does not teach the production of an addressable array. Anderson does not teach the production of an addressable array because Anderson is directed to a centrifugal synthesizer, as exemplified in the figure below. The centrifugal synthesizer (10) includes a rotor body (12) containing a hollow core defining a chamber (24), a central core member (34) and a means for generating and introducing fluids (e.g., reagents) of different densities into the hollow core of the rotor body during rotation such that the fluids introduced form layers of differing densities.



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The hollow core (24) of the rotor body (12) is filled with a suspension of a sedimented solid phase support medium. The centrifugal synthesizer functions to control the flow of liquid across the solid phase supports within the medium. There is, however, no teaching in Anderson with respect to using the disclosed centrifugal synthesizer to produce an addressable array. Rather, the solid phase support being in the fluid suspension is uniformly contacted with the same reagents. Hence, because the solid phase support is contacted with the same reagents, Anderson does not teach the production of an array that contains different chemical moieties at particular predetermined locations. Accordingly, Anderson is deficient in that it fails to teach an addressable array.

In view of the above, Anderson does not anticipate the Applicants' claims because Anderson does not teach all the elements of the rejected claims. Therefore, the Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of Claims 1-9 and 11-16 be withdrawn.

Claim Rejections – 35 U.S.C. § 103

Claim 10 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Anderson et al.

According to the M.P.E.P. § 706.02 (j), to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Claims 10 ultimately depends from Claim 1. As set forth above, Claim 1 is directed to a method of producing an addressable array. As described above, Anderson is deficient in that it fails to teach all the elements of the rejected claims.

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Furthermore, Anderson fails to suggest an "addressable" array because the sedimented solid phase supports are in the suspension within the chamber of the hollow rotor and are contacted with the same reagents. Because the solid phase supports are contacted with the same reagents, Anderson does not teach or suggest the production of an array that contains different chemical moieties at particular predetermined locations. Accordingly, Anderson is deficient in that it fails to teach or suggest an "addressable" array.

The Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of Claim 10 be withdrawn.

Claim 16 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Anderson et al. in view of Blanchard (U.S.P.N. 6,384,210).

Claim 16 is dependant on Claim 1. Claim 1 is directed to a method of producing an addressable array. As described above, Anderson is deficient in that it fails to teach or suggest this element of the rejected claims. Since Blanchard was cited solely for its disclosure of the use of a pulse jet for the addition of monomers to a substrate, Blanchard fails to remedy the deficiencies of Anderson. In view of the above, the Applicants contend that a *prima facie* case of obviousness has not been established and, therefore, respectfully request that the 35 U.S.C. § 103(a) rejection of Claim 16 be withdrawn.

Double Patenting

Claims 1-16 of this application are rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent Application Nos. 10/813,467; 11/234,701; 10/813,337 and 11/082,006.

The Applicants categorically disagree with these rejections. However, solely to expedite prosecution, the Applicants provide herewith a Terminal Disclaimer over U.S. Patent Application Nos. 10/813,467; 11/234,701; 10/813,337 and 11/082,006.

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The Applicants note that the filing of a Terminal Disclaimer to obviate a rejection based on non-statutory double patenting is not an admission of the propriety of the rejection.¹ As such, while the Applicants firmly believe that this rejection fails to meet the requirements for Obviousness-Type Double Patenting set forth in MPEP § 804, a Terminal Disclaimer is nevertheless filed.

Accordingly, in view of terminal disclaimer(s) filed herewith, the Applicants respectfully request that this rejection be withdrawn.

New Claim

New Claim 28 depends from Claim 1 and incorporates the elements recited therein. Accordingly, for the reasons stated herein above, Claim 28 is patentable.

¹ *Quad Environmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). The court indicated that the "filing of a terminal disclaimer simply serves the statutory function of removing the rejection of double patenting, and raises neither a presumption nor estoppel on the merits of the rejection."

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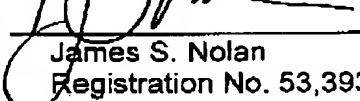
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Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone Young-Ping Hwung at (408) 553-3738.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10031531-1.

Respectfully submitted,

Date: 3.13.07By: 
James S. Nolan
Registration No. 53,393Date: 3.13.07By: 
Bret E. Field
Registration No. 37,620

Enclosure(s): Terminal Disclaimer(s) as to U.S. Patent Application Nos. 10/813,467; 11/234,701; 10/813,337 and 11/082,006.

AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

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